



Land-Based Testing Facility Site Selection

Providing Canadian Armed Forces (CAF) members with the facilities and tools they need to support operations is one of our foremost priorities – we must deliver. This is why the Government of Canada is procuring 15 new Canadian Surface Combatants (CSC) ships, upgrading and replacing the capabilities of two classes of Royal Canadian Navy (RCN) ships in a new class of warship. To help bring these ships into service and support them throughout their lifecycle, the Department of National Defence (DND) will be building a land-based testing facility (LBTF) on a portion of DND-owned land at Hartlen Point in Halifax, Eastern Passage, NS.

Why does DND need an LBTF?

In addition to the design and construction of the ships, the CSC project includes building new infrastructure to bring these ships into service and support them throughout their lifecycle. New and modified infrastructure will include jetties, warehouses, and testing and training facilities.

The LBTF project will deliver a facility for the design, integration, testing, evaluation, and accreditation of equipment for new ships and regular upgrades throughout each ship's lifecycle. Of note, this is not a weapons testing facility. This facility will be used to test and integrate the ships' capabilities, including electronic, radio and radar systems, before being installed on actual vessels. No weapons systems or weapons will be housed at the LBTF.

Canada's allies have also built facilities similar to the LBTF to support their national shipbuilding programs. Since the CSC will use many different systems than our allies, we will need to execute our own testing in a purpose-built facility tailored to our systems.

What factors were considered during the site selection process?

Between 2020 and 2021, DND identified five potential locations for construction of an LBTF and instructed Irving Shipbuilding Industries (ISI) to conduct a series of analyses through the existing ship design contract. The final report that was delivered to DND covered several topics. The report included current DND and industry capability for land-based testing, a recommendation on what to test at the LBTF, site selection criteria based on the expected testing requirements, as well as expected building and operational costs of the proposed facility.

DND typically works with a wide variety of industry leaders, allies in Defence and other stakeholders when introducing any new capability to ensure we achieve the capability's operational intent. Early in the LBTF planning process, our allies and partners expressed to us the importance of having the ability to use radio frequency signals to test the ships' systems and the importance of proximity to the ocean based on their experience with this type of facility. This provides the facility with a maritime environment similar to the one in which the future ships will be operating.

Based on the analyses conducted and the feedback received from allies, ISI proposed that a new LBTF be built at Hartlen Point to support CSC testing

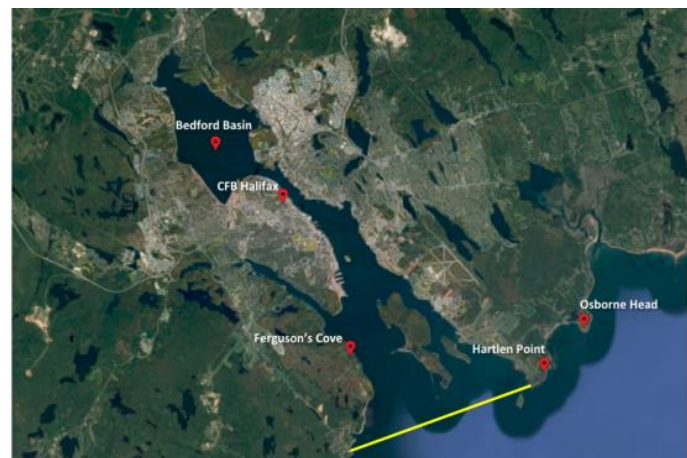


Figure 1
Potential sites communicated to ISI by DND

before getting the new ships and after delivery throughout the ships' operational lifespan. This report was delivered in phases giving DND an opportunity to review and make amendments as ISI progressed through the analysis. Ultimately, this was a DND-led site selection process.

Several factors were considered in our site selection analysis, including land size, access to roads and municipal services, distance from Canadian Forces Base (CFB) Halifax, ability to replicate a realistic maritime environment, potential impact on operations, and more. Proximity to CFB Halifax was deemed critical due to the proximity of personnel located at DND ship repair facilities for maintenance purposes and proximity to all other DND and industry testing sites in the Halifax Regional Municipality (HRM).

Five potential sites were evaluated. The potential site locations were:

- Bedford Basin;
- Ferguson's Cove;
- Osborne Head;
- CFB Halifax - Stadacona; and
- Hartlen Point.

While each of the five sites met a number of the evaluation criteria, Hartlen Point was found to be the most appropriate location because it met all essential requirements for the project. Essential requirements included proximity to CFB Halifax and ship building facilities; adequate space to house personnel, equipment, and systems; direct coastline access with the ocean in line of sight; inter-operability with existing electronic range; minimal radio frequency interference with existing public or commercial radio frequency signals; and ability to properly secure the facility.

In the summer of 2021, a more refined analysis of the proposed site was conducted to identify the best geographical location for the LBTF facility. This analysis took into account which location would maximize the operational capability of the facility while minimizing the overall footprint of the site and the impact to DND operations in the area. Four specific locations at Hartlen Point were evaluated along with Osborne Head to ensure rigour in the analysis. The golf course at Hartlen Point was not deemed to be a viable option because of disruptions to current activities, height above sea level and distance from the coastline for surface testing.

It was determined that Osborne Head was not a viable option because of height above sea level, distance to coastline and impact to the existing electronic systems test range.



Figure 2
Preliminary site plan

Where will the facility be built at Hartlen Point?

The approximately 11,500-m² facility will be constructed in the southeastern portion of DND-owned land at Hartlen Point (Figure 2). Additionally, once construction has finished and the facility is operational, security fencing will be installed at minimum 30m around the facility. However, the exact length of the fencing is subject to change during the design process. At this time, facility operation is not expected to run 24/7, but the exact testing schedule is currently unknown. We expect a busy period between 2026 and the mid-2030s as the facility begins to operate, and we prepare to deliver the first CSC. There is no intent to establish a permanent maritime exclusion zone near-shore. The project team will continue to work to prevent adverse impact to fishing, surfing, birding, golfing, and hiking communities while operating under current government, regulatory and legislative policy.